



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,950	03/19/2004	Michael A. Rothman	42339-199895	7168

26694 7590 09/27/2006

VENABLE LLP  
P.O. BOX 34385  
WASHINGTON, DC 20043-9998

EXAMINER
----------

ELMORE, STEPHEN C

ART UNIT	PAPER NUMBER
----------	--------------

2185

DATE MAILED: 09/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/803,950

Applicant(s)

ROTHMAN ET AL.

Examiner

Stephen Elmore

Art Unit

2185

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,9 and 18-26 is/are rejected.
- 7) ☒ Claim(s) 2-8 and 10-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.


**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
**STEPHEN C. ELMORE**  
**PRIMARY EXAMINER**

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

1. This Office action responds to the application filed March 19, 2004.
2. Claims 1-26 are presented for examination.

### *Specification*

3. The disclosure is objected to because of the following:

- a. The title of the invention is not clear or descriptive of the invention to which the claims are directed. See MPEP § 606.01. Specifically, the title is unclear as to the scope of meaning of "firmware-only disk areas,"

1. if disk areas are being described then self-evidently they are physical, if somehow, the title is meant to suggest that the disk areas are software, i.e., constructed of software, then this is not the invention being disclosed in the remainder of the disclosure;

2. additionally, "firmware" (or "firmware-only") has a distinct meaning apart from the term "disk" or "disk areas," so using the above combination does not help clarify what the invention is directed to, but makes it unclear. There appears to be missing descriptive language;

- b. The abstract of the disclosure is objected to because, last sentence, "to provide a software RAID" is mis-descriptive, for example, "to provide a software based controller for a RAID system" is accurate, and see (c) below;

- c. Specification,

1. the disclosures' multiple use of the terminology "software RAID" (and substantially similar terms, with the same intent) are objected to as obscuring the scope of the invention, the term "software RAID" encompasses the scope of an entire RAID

Art Unit: 2185

system configured in software alone, however, Fig. 3, element 316, indicates that the RAID is clearly made of physical devices, notwithstanding that the RAID system as a whole incorporates some software components, that are not traditionally software. Therefore, use of "software RAID" is contradictory and confusing to the reading of the rest of the disclosure, it needs to be revised to agree with the remainder of the disclosure, such as "software accessed RAID," or "RAID with software controller," for example, so the scope of what the inventors invented can be made clear;

2. page 3, paragraph [00014], "firmware 108" is incorrect, "108" is virtual machine. Applicant is requested to check the disclosure for any other minor typographical errors such as this.

d. Specification, paragraphs [0004 and 00029-00031] are objected-to for the reasons as given in the 101 rejections below as not being true and accurate descriptions of known technology, or accurately described features of the instant invention, where a communications link is proposed to be equivalent to a storage medium.

**Correction is required.** See MPEP § 608.01(b).

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1, 9 and 18 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the as yet unclaimed limitation, such as,

"a virtual machine manager (VMM) installed in said firmware operative to provide said operating system access to said protected areas

Art Unit: 2185

independently of any conventional hardware memory device controller by using a VMM driver";

but however,

**does not reasonably provide enablement** for the actually claimed limitations, such as,

"a virtual machine manager installed in said firmware operative to provide said operating system access to said protected areas independently of any memory device controller".

**Explanation:**

The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and or use the invention commensurate in scope with these claims. These claims suggest that somehow, the virtual machine manager can provide access to memory without "any" memory controller (that is, without any memory control functionality), this suggestion is categorically untrue or impossible, but what is true is that in the actual invention the VMM provides the necessary memory controller functionality through emulation in software via, necessary and essential, device drivers, see paragraphs [00014] and [00024] , so there is "some" kind of memory controller present in the inventive system, contrary to what is being presently claimed.

***Claim Rejections - 35 USC § 101 and 112, First and Second***

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 18-26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The scope of the claim covers a "medium" which encompasses non-statutory subject matter in that "a carrier wave carrying data" (paragraph [0004]) and

Art Unit: 2185

"software and data...in the form of signals...transferred via communications interfaces or paths or channels," or just plain "signals," see paragraphs [00029, 00030 and 00031], they do not presently constitute allowable subject matter under 101 since these are not a true computer storage medium or memory (i.e., secondary memory, [00029]). This is a misuse of existing, well-established terminology. A data transmission link is not equivalent to a storage medium, these are two very different things. A transmission link is engineered for transmitting data, a storage medium is engineered for storing data. Applicant did not invent a transmission link that stores data.

The actually claimed language is "a machine-accessible medium (communications link?) containing code that, when executed by a computing platform (processor?), causes the computing platform (processor?) to perform a method comprising:...".

Categorically, there exists no known processor that is capable of executing code while it is in the process of being transmitted across a communications link, to be executed it first must be saved into a proper storage medium (computer memory).

Applicant did not invent a new kind of processor that is capable of executing code while in the state of being transmitted through a transmission link.

These items mentioned in the Specification are not a physical storage medium capable of containing code, and so, these claims do not fall into one of the statutory classes: process, machine, manufacture, or composition of matter, to whatever extent they try to encompass such subject matter.

8. Claims 18-26 are rejected under 35 U.S.C. 101 because the disclosed invention is inoperative and therefore lacks utility. Applicant did not invent a new kind of processor that is capable of executing code while in the state of being transmitted through a transmission link.

***Claim Rejections - 35 USC § 112***

9. And consequently, these claims are also required to be rejected under 35 U.S.C. 112, first paragraph as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, Applicant did not invent a new kind of processor/medium that is capable of executing code while in the state of being transmitted through a transmission link medium.

10. Claims 18-26 are also rejected under 35 USC 101 based on its use of mixed use of method limitations and apparatus limitations in a single claim.

The statutory categories under 35 USC 101 are expressed in the alternative, i.e., process, machine, manufacture, or composition of matter.

Applicants' claims are directed to "a machine-accessible medium containing code" (an article of manufacture), and in addition, recite "a method comprising" (a method), and so, encompass two statutory classes, i.e., manufacture and method. *See Ex parte Lyell, 17 USPQ2d 1548, 1551 (Bd. Pat. App. & Int. 1990).*

***Claim Rejections - 35 USC § 112***

11. And consequently, these claims are also required to be rejected under the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2185

12. Claims 18-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. For the above reasoning in the 101 rejection, it is unclear whether claims 18-26 claims a manufacture or a method, and so, the scope of claims 18-26 are indefinite. *See Ex parte Lyell, 17 USPQ2d 1548, 1551 (Bd. Pat. App. & Int. 1990).*

***Allowable Subject Matter***

13. Claims 2-8 and 10-17 are objected to as being dependent upon a rejected base claim, however, contain allowable subject matter.

***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Elmore whose telephone number is (571) 272-4436. The examiner can normally be reached on Mon-Fri from 9:30-6:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sanjiv Shah can be reached on (571) 272-4098. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2185

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

September 20, 2006

  
**STEPHEN C. ELMORE**  
**PRIMARY EXAMINER**